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PATENT APPLICATION**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Yoshihisa ITOH, et al.

Appln. No.: 09/978,076

Group Art Unit: 2651

Confirmation No.: 3171

Examiner: Not Yet Assigned

Filed: October 17, 2001

For: HOLOGRAM RECORDING AND REPRODUCING APPARATUS

SUBMISSION OF FORMAL DRAWINGS

Commissioner for Patents
Washington, D.C. 20231

Sir:

Submitted herewith please find six (6) sheets of formal drawings. The Examiner is respectfully requested to acknowledge receipt of these formal drawings.

Respectfully submitted,

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The diagram illustrates an optical system for recording and reproducing data. A LASER (11) emits a beam (12) that passes through a beam splitter (13) and a lens (14) to a recording medium (15). The beam is reflected by a mirror (16) and focused by a lens (16a) onto a photodetector (20). The photodetector is connected to a DECODER (26) which outputs REPRODUCED DATA. The recording medium (15) is connected to an ENCODER (25) which receives RECORDING DATA. The system includes a mirror (17) and a beam splitter (13) to direct the beam. Distances f are indicated between the lenses and the recording/reproducing elements.

REPRODUCED
DATA

The diagram illustrates an optical recording and reproducing system. A central disk 10 rotates around a vertical axis. A pickup unit 30 is positioned to move radially across the disk's surface. A laser beam 11 is emitted from a LASER source, passes through a series of optical components including mirrors (12a, 12b, 12c, 18, 19, 23, 41, 42, 44) and lenses (14, 15, 16, 20, 43), and is focused onto the disk surface. The reflected beam travels back through the optical path. The system includes an ENCODER (25) for recording data and a DECODER (26) for reproducing data. A control unit (32) manages the operation, and a data output unit (31d) provides the reproduced data. The disk surface is marked with 'P' and 'A'.

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FIG. 3

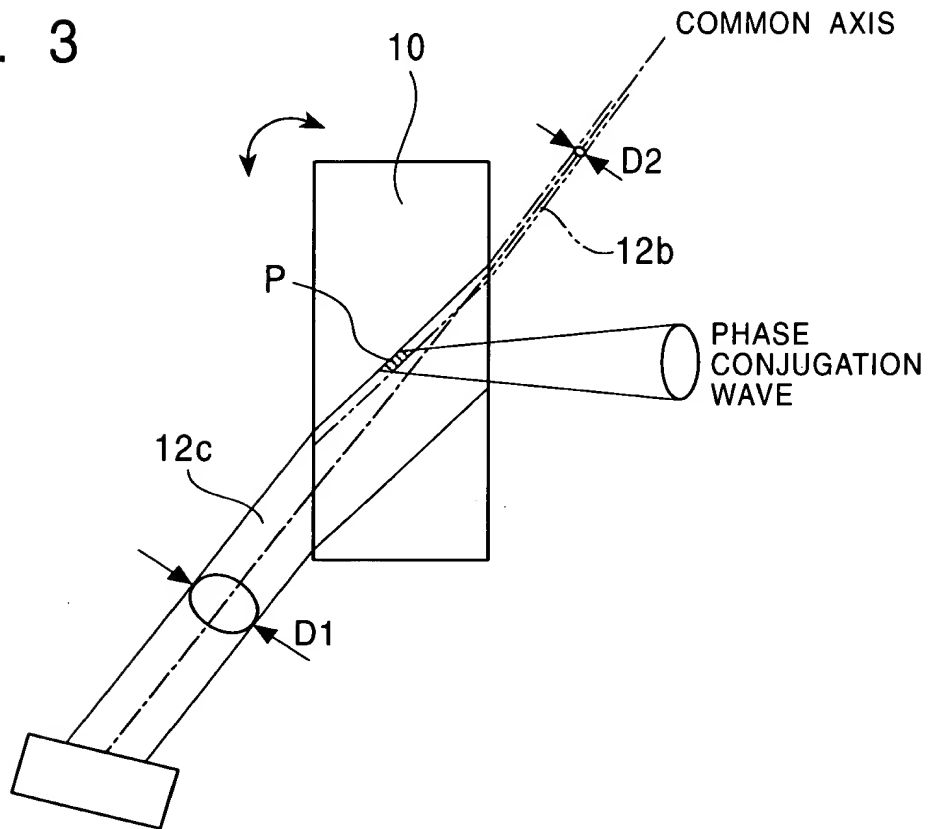
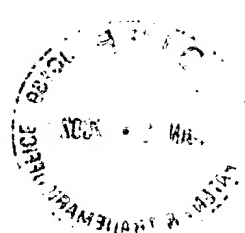
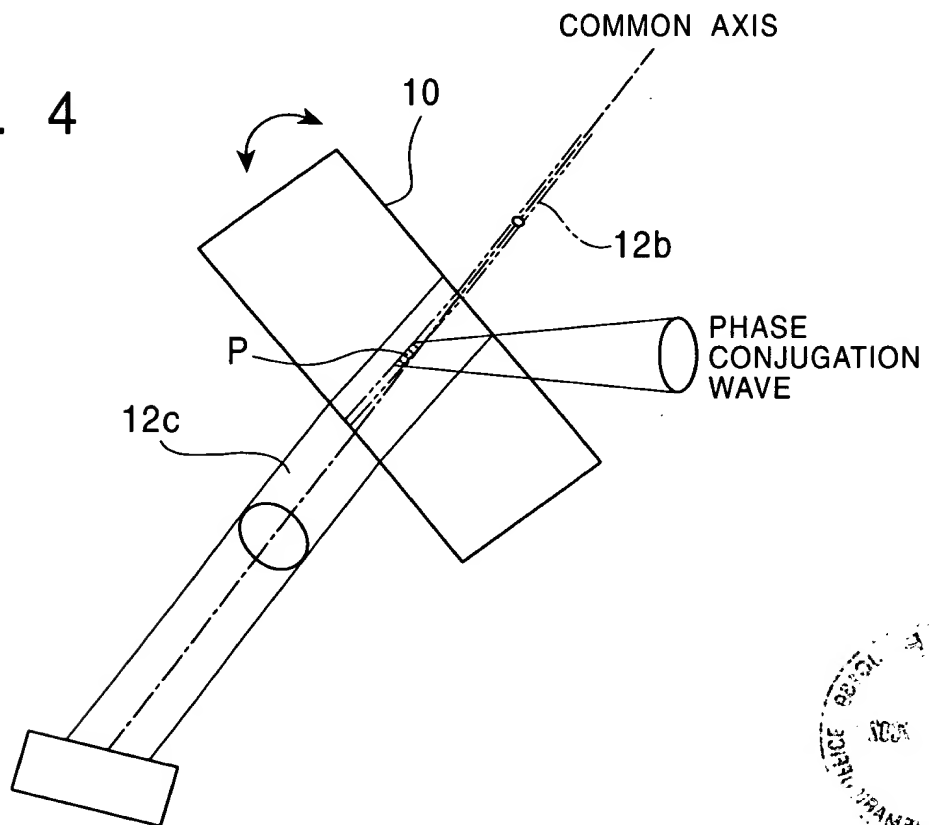


FIG. 4



[illegible]

FIG. 6

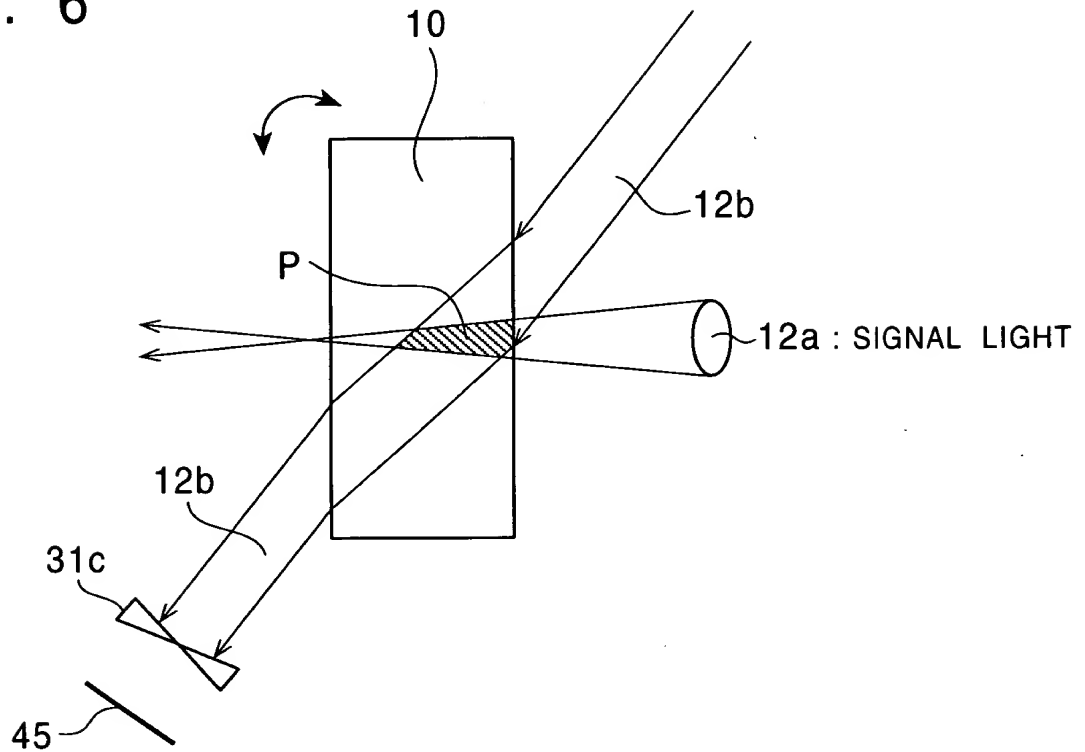


FIG. 7

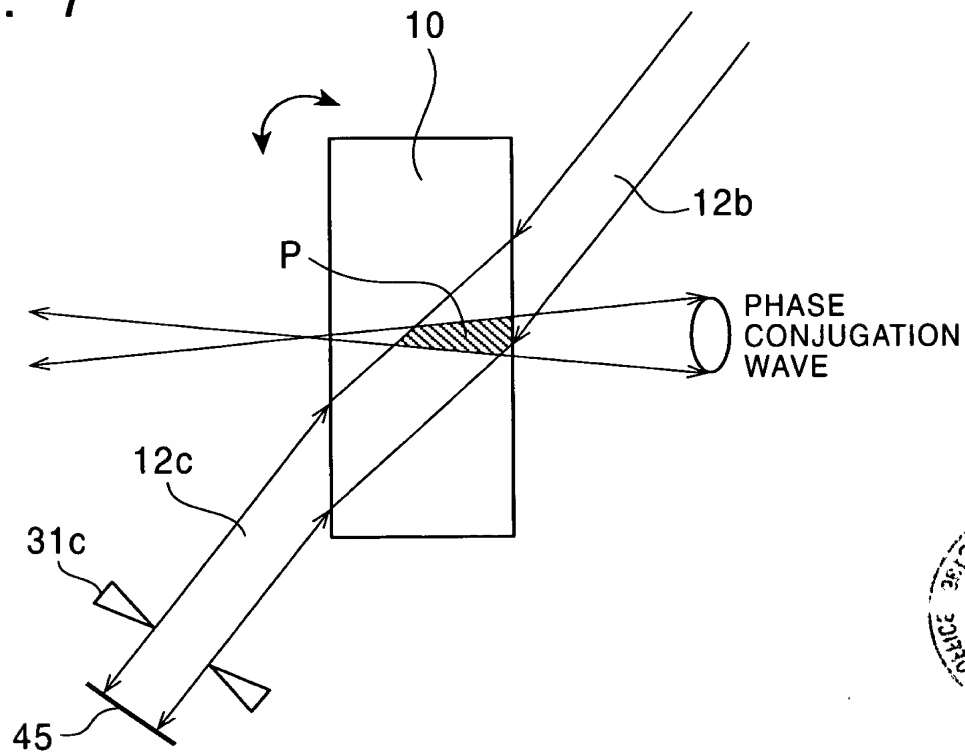


FIG. 8

